

# Installation instructions for meshkit/rgg from scratch

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Note: Steps presented here are for Linux or Unix based OS. Users might want to skip the installation of tools that are already installed in their system.

Tip: If you are using ubuntu or other linux based system try getting hdf5 and netcdf from package manager. Then you can skip directly to **cgm** step below.

**.bashrc** file (add the following lines)

```
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/usr/local/cubit-12.2/bin/ export  
PATH=$PATH:/usr/local/cubit-12.2/bin/
```

```
/> bash
```

```
/> cd /software/meshkit061011/external/src
```

**zlib-1.2.5** (wget <http://zlib.net/zlib-1.2.5.tar.gz>)

```
/> cd zlib-1.2.5
```

```
/> ./configure --prefix=/software/meshkit061011/external/lib/zlib
```

```
/> make
```

```
/> make check
```

```
/> make install
```

```
/> cd ..
```

**szip-2.1** (wget <http://www.hdfgroup.org/ftp/lib-external/szip/2.1/src/szip-2.1.tar.gz>)

```
/> cd szip-2.1
```

```
/> ./configure --prefix=/software/meshkit061011/external/lib/szip
```

```
/> make
```

```
/> make check
```

```
/> make install
```

```
/> cd ..
```

**autoconf-2.68** (wget <http://ftp.gnu.org/gnu/autoconf/autoconf-2.68.tar.gz>)

```
/> cd autoconf-2.68  
  
/> ./configure --prefix=/software/meshkit061011/external/lib/autoconf  
  
/> make  
  
/> make check (takes a long time)  
  
/> make install  
  
/> cd ..
```

#### **hdf5-1.8.7** (wget <http://www.hdfgroup.org/ftp/HDF5/current/src/hdf5-1.8.7.tar.gz>)

```
/> cd hdf5-1.8.7  
  
/> ./configure --prefix=/software/meshkit061011/external/lib/hdf5  
--with-zlib=/software/meshkit061011/external/lib/zlib  
--with-szlib=/software/meshkit061011/external/lib/szip  
  
/> make (don't worry about the warnings - 'due to the current gcc version')  
  
/> make check  
  
/> make install  
  
/> cd ..
```

#### **netcdf** (wget <http://www.unidata.ucar.edu/downloads/netcdf/ftp/netcdf-4.1.2.tar.gz>)

```
/> cd netcdf-4.1.2  
  
/> ./configure --prefix=/software/meshkit061011/external/lib/netcdf  
--with-zlib=/software/meshkit061011/external/lib/zlib  
--with-szlib=/software/meshkit061011/external/lib/szip  
--with-hdf5=/software/meshkit061011/external/lib/hdf5 --enable-netcdf-4  
  
/> make  
  
/> make check  
  
/> make install  
  
/> cd ..
```

#### **cgm** (svn co <https://svn.mcs.anl.gov/repos/ITAPS/cgm/trunk> cgm)

```
/> cd cgm  
  
/> /software/meshkit061011/external/lib/autoconf/bin/autoreconf -fi
```

```

/> ./configure --prefix=/software/meshkit061011/external/lib/cgm
--with-cubit=/usr/local/cubit-12.2 --disable-debug --enable-optimize

/> make

/> make check

/> make install

/> cd ..

moab(svn co https://svn.mcs.anl.gov/repos/ITAPS/MOAB/trunk moab)

/> cd moab

/> /software/meshkit061011/external/lib/autoconf/bin/autoreconf -fi

/> ./configure --prefix=/software/meshkit061011/external/lib/moab
--with-cgm=/software/meshkit061011/external/lib/cgm
--with-hdf5=/software/meshkit061011/external/lib/hdf5
--with-netcdf=/software/meshkit061011/external/lib/netcdf --enable-optimize --disable-debug

/> make

/> make check

/> make install

/> cd ..

lasso(svn co https://svn.mcs.anl.gov/repos/ITAPS/Lasso/trunk lasso)

/> cd lasso

/> /software/meshkit061011/external/lib/autoconf/bin/autoreconf -fi

/> ./configure --prefix=/software/meshkit061011/external/lib/lasso
--with-geom=/software/meshkit061011/external/lib/cgm
--with-imesh=/software/meshkit061011/external/lib/moab --enable-optimize --disable-debug

/> make

/> make check

/> make install

/> cd /software/meshkit061011

meshkit(svn co https://svn.mcs.anl.gov/repos/fathom/MeshKit/trunk/ meshkit)

```

```
>> cd meshkit  
  
>> /software/meshkit061011/external/lib/autoconf/bin/autoreconf -fi  
  
>> ./configure --prefix=/software/meshkit061011/external/lib/meshkit  
--with-geom=/software/meshkit061011/external/lib/cgm  
--with-imesh=/software/meshkit061011/external/lib/moab  
--with-irel=/software/meshkit061011/external/lib/lasso --enable-algs --enable-rgg  
--enable-optimize --disable-debug --enable-src --enable-utils  
  
>> make  
  
>> make check
```

## All Done !

RGG executables: 'assygen' and 'coregen' are in the /software/meshkit061011/meshkit/rgg

```
cd /software/meshkit061011/meshkit/rgg/test/<any-dir>  
  
make
```

(Thanks,Gokhan for submitting this script)